

# Televisions

Ecodesign and Energy Labelling  
Compliance Assessment

Summary Report



## Introduction

This report gives an overview of the results of ecodesign and energy labelling market surveillance of televisions organised between 2019 - 2021 by SEAI, and conducted as part of ongoing national market surveillance activities relating to the Ecodesign Directive (2009/125/EC) and the Energy Labelling Regulation 1369/2017.

It identifies the levels of non-compliance encountered relating to televisions that were available on the Irish and broader European market and may facilitate a degree of comparison between other television market surveillance initiatives over time.

## The Relevant Legislation

The regulations and standards in force at the time and used to verify compliance of the televisions were:

### *Applicable Regulations:*

- Commission Regulation (EC) No 642/2009 of 22 July 2009 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for televisions (as amended).
- Commission Delegated Regulation (EU) No 1062/2010 of 28 September 2010 supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of televisions (as amended).

### *Applicable Standards:*

- EN 50564:2011: "Electrical and electronic household and office equipment. Measurement of low power consumption".
- IEC 62087: "Methods of measurement for the power consumption of audio, video and related equipment", edition 2 or edition 3.

Note that market surveillance activities were wholly completed prior to the entry into force of the new ecodesign and energy labelling legislation for electronic displays on the 1<sup>st</sup> March 2021.

## Assessment of Technical Documentation

Televisions selected for assessment were identified from several sources in order to provide (insofar as possible) a reasonable representation of the televisions available on the Irish market.

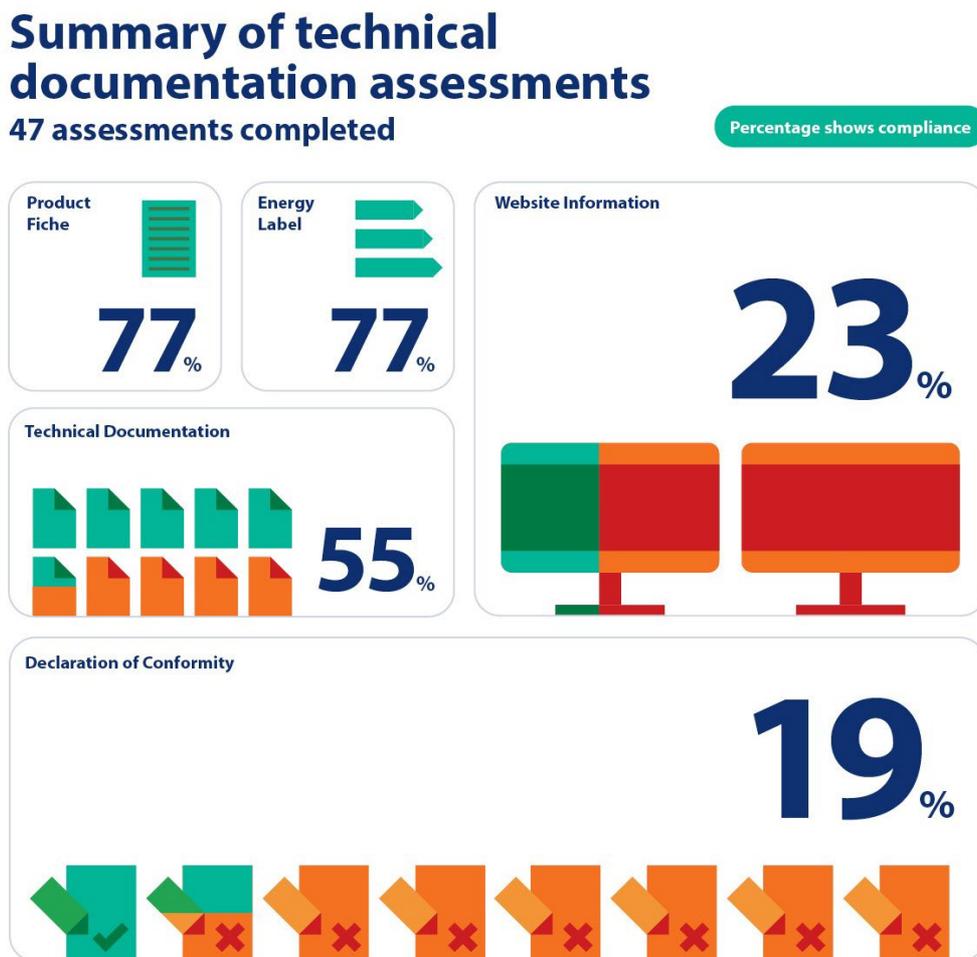
Sources included television listings on electrical retailer and manufacturers' websites, as well as lists of televisions encountered during SEAI's annual retailer energy labelling inspection campaigns.

A 'risk-based' approach was taken to product selection, with a higher level of risk assigned to products with greatest market penetration, 'budget' brands, and new market entrants. Using this approach, 47 models were selected for assessment from 22 different manufacturers/brands. Formal written requests for the provision of appropriate technical documentation were made to the relevant companies.

The requirement for provision of relevant energy labelling information on the European Product Database for Energy Labelling (EPREL) had only recently been implemented at the time these requests were issued. No assessments of compliance with the requirements of EPREL were conducted as part of this compliance assessment - campaign, albeit suppliers were reminded of their obligations in correspondence issued.

### Findings of Technical Documentation Assessment

No request for technical documentation resulted in a complete set of compliant information being provided first time around – based on SEAI’s experience of undertaking technical documentation assessments across all product categories covered by ecodesign and energy labelling legislation, this is not unusual.



The findings of the technical documentation assessment are described as follows:

*'Declaration of Conformity'*: where non-compliant aspects of the Declaration of Conformity (DoC) were encountered, typically including:

- missing references to the applicable regulation and test standards
- the DoC being prepared by an inappropriate entity e.g. the original equipment manufacturer rather than the entity placing the product on the market

*'Label and Product Fiche'*: refers to non-compliances related to incorrect label or product fiche format, or the non-provision of the product fiche information in manuals or brochures.

*'Website'*: meaning non-compliances relating to the supplier's website, where there is typically a failure to provide all of the required ecodesign related information on free-access websites<sup>1</sup>.

*'Technical Documentation'*: such non-compliances include:

- absence of certain relevant documentation or specific aspects required (particularly ecodesign requirements)
- technical documentation values not supporting the declared fiche and energy label values
- no test conditions or measurement methodologies described

*'% Non-Compliant'*: refers to the percentage of instances where non-compliances with respect to the applicable regulations have been identified by the MSA. Actions carried out by the economic operator to rectify such 'formal' non-compliances when identified by the MSA are referred to as 'corrective actions' by the MSA.

*'% Compliant'*: refers to percentage of instances where compliant documents were provided, (usually after a number of requests) and where no non-compliances were identified and no changes required by the economic operator.

The most common non-compliances encountered when assessing technical documentation were relating to the DoC, followed by the free-access website information, with test reports and the label comprising the remainder.

## Initial Laboratory Testing

Twelve televisions were selected for verification testing in a laboratory, based on findings from the technical documentation checks (e.g. non-compliances identified in the test reports, non-provision of information), as well as their perceived 'risk' of non-compliance e.g. high energy efficiency at a low cost, high degree of market coverage etc.

An appropriate laboratory was selected for testing through a procurement exercise and an individual unit of each of the twelve selected models was purchased from website suppliers. These units were shipped to the testing laboratory in accordance with a 'chain of custody' procedure for testing, with purchase and shipping of the products being undertaken in several batches.

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<sup>1</sup> An issue identified on a number of occasions related to the licensing agreements held between two parties and the control of the product related website. The economic operator that was the brand 'licensee' did not always have control over the information displayed on the website related to the brand, which was still in control of the 'licensor' – as per the licensing agreement. This meant that when non-compliance was identified to the licensee, they were not in a position to be able to update the licensor's website to include the information that was absent.

The following parameters were measured and reported upon by the laboratory:

- 'on-mode' power consumption
- 'off-mode/standby/network standby' power consumption
- automatic power down function
- peak luminance ratio
- (calculation of) energy efficiency index (EEI) and annual 'on-mode' energy consumption (AEC)

'On-mode' is the condition whereby a television is connected to the mains power source and produces sound and pictures. The manufacturer must declare the 'on-mode' power consumption in relevant documentation and the value declared is verified against the test result.

'Standby mode' is the condition whereby a television is connected to the mains power source, depends on energy input from the mains power source to function properly and offers only a reactivation or information/status display function. Standby mode is a low-power mode with a maximum power (W) limit applicable. The television must also enter standby mode after a set period of time since the user's last activity.

'Off-mode' is a condition in which the equipment is connected to the mains power source and is not providing any function. Off mode is a low-power mode with a maximum power (W) limit applicable.

'Energy Efficiency Index' (EEI) is the measure of the television's annual power consumption compared to a reference power consumption taking into account the features of the television and screen size.

'Annual 'on-mode' energy consumption' (AEC) is a measure of the energy the television uses annually, given average expected usage<sup>2</sup>.

'Peak Luminance Ratio' is the ratio of the television's highest luminance in its default condition (as set by the manufacturer), to the peak luminance of the brightest 'on mode' condition. This ratio must not fall below a set value.

'Automatic Power Down' (APD) is a requirement where televisions, after no more than 4 hours in 'on mode' following the last user interaction, automatically enter a 'standby mode' or 'off mode', or, another mode which does not exceed the power consumption of either of these modes. This feature is required to be set by default i.e. can be deactivated if the user wishes. The television must also display an alert message advising the user before the automatic switch occurs.

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<sup>2</sup> Note: As the EEI and AEC are based on the television's 'on-mode' power consumption, if a television exceeds the limit value applicable, it may also exceed the EEI value for the declared EEI class, and the applicable AEC value.

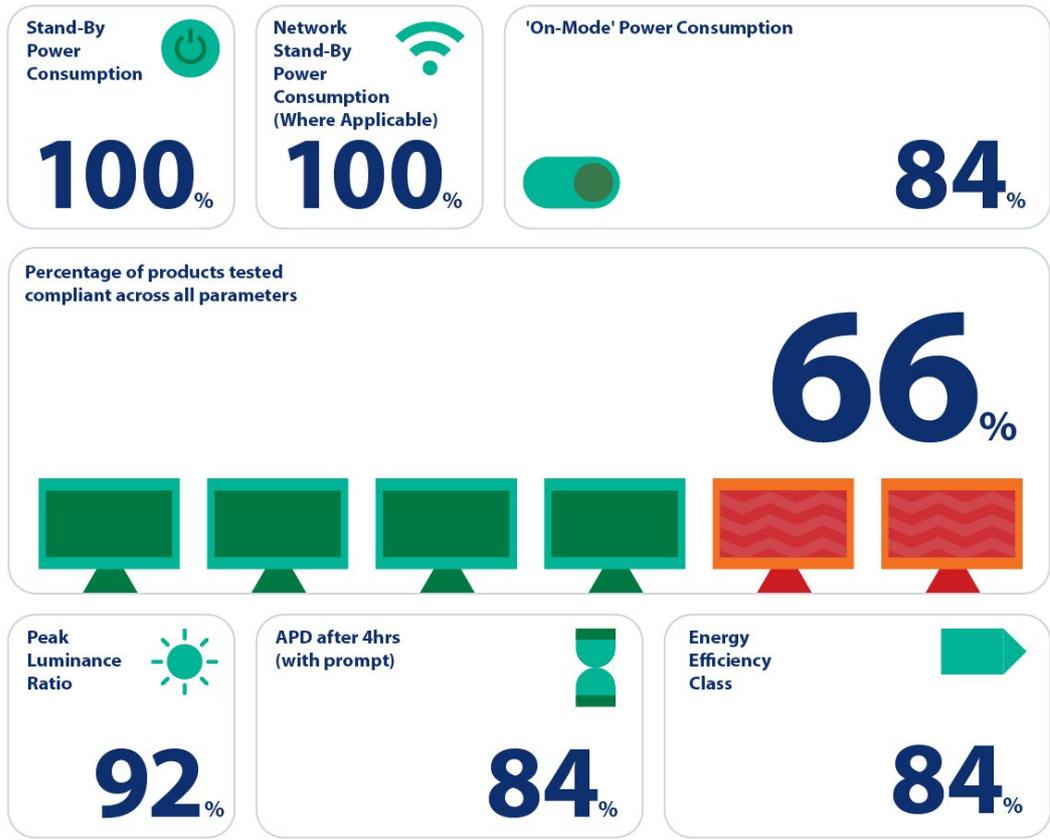
Initial Testing Results

Of the twelve models tested, four products failed on at least one parameter, with eight models identified as being compliant for the parameters tested.

# Results of initial laboratory testing

12 models tested

Percentage shows compliance



The results indicated that all televisions complied with the requirements for 'standby power' consumption and 'networked standby' power consumption (where applicable).

Most failures were observed in relation to the automatic power down and declared power consumption (with resultant impact on energy efficiency class and EEL).

APD non-compliances were caused by this parameter not being the default initial setting i.e. requiring users to activate this setting by selecting a 'power saving' or 'energy saving' mode, or the lack of a display message before the television automatically changes to power down mode.

On mode power consumption non-compliances were reported where measured power consumption exceeded that declared by the manufacturers, taking relevant tolerances into account. Peak luminance non-compliance was observed for one product, where the required value of 65% was not achieved.

The presence or absence of the energy label and product fiche as supplied with the television units were also confirmed by the laboratory.

## Triplicate Laboratory Testing

Four models were identified for further triplicate testing on the basis of non-compliances confirmed by initial testing, in accordance with the verification procedures laid down in the energy labelling and ecodesign regulations.

Three units of each of the four non-compliant models were purchased and sent for testing, with a total of twelve units being tested.

### *Triplicate Testing Results*

Of the four television models subjected to triplicate testing, two of the four models were found to be compliant.

The two models which passed appeared to have had changes made between the time of initial testing and triplicate testing, with the product having been brought into compliance without any intervention from the MSA.

It is believed that changes were made using 'firmware updates' for both models that were triplicate tested, as this was noted in the firmware versions observed by the testing laboratory. This updated firmware brought the product's on-mode power consumption, APD and peak luminance ratio into compliance, where applicable to each product.

For the two models that failed, triplicate testing confirmed the initial failure of one product for its on-mode power consumption, while confirming the other in terms of APD duration.

### Summary of Triplicate Testing Results

Parameter	Product 1	Product 2	Product 3	Product 4
'On-Mode' Power Consumption	Pass	Fail	Pass	Pass
APD after 4hrs (with prompt)	Fail	Pass	Pass	Pass
Stand-By Power Consumption	Pass	Pass	Pass	Pass
Network Stand-By Power Consumption	Pass	Pass	Pass	Pass
Peak Luminance Ratio	Pass	Pass	Pass	Pass

## Summary

With two products out of twelve confirmed as being non-compliant in terms of product performance, an overall non-compliance rate of **16.6%** was observed. This should not be taken as representative of the overall level of product non-conformance in the television market in Ireland but rather reflects the targeted approach to testing products – which were identified as being of 'higher risk'. Where technical documentation non-compliance has been identified, in most instances, such non-compliance can be and has been rectified voluntarily by the economic operator, without recourse to formal enforcement measures.

Of the 47 products for which technical documentation was sought, formal non-compliances were identified in all cases. The main source of formal non-compliance was in the Declarations of Conformity (occurring in 38 of 47 cases), the primary reason for which was the failure to make reference to the appropriate harmonised and/or technical standards applied in testing<sup>3</sup>.

Following engagement with the manufacturers and corrective actions being applied, 40 products of 47 were deemed to have been brought into compliance and the cases closed. A number of products had ceased being placed on the market during the course of the assessment and no further action was taken. The two cases where testing confirmed non-compliance have proceeded to the issuance of Compliance Advice letters to the economic operators, which reflects a 'pre-enforcement' step that is applied by the Irish MSA.

At the time of writing, no response has been received from the economic operators in relation to this correspondence and given that the related economic operators are located outside of Irish legal jurisdiction, SEAI is engaging with the respective MSA in the relevant EU countries to address the non-compliances.

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<sup>3</sup> As specified in Commission Communication (2016/C 460/01), EN 50564:2011 'Electrical and electronic household and office equipment - Measurement of low power consumption' is a harmonised standard for the measurement of low power consumption for products in the scope of Regulation (EC) No. 1275/2008 (as amended). There were often references to this standard in the test reports provided, but a failure to update and include the standard in the Declaration of Conformity.



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